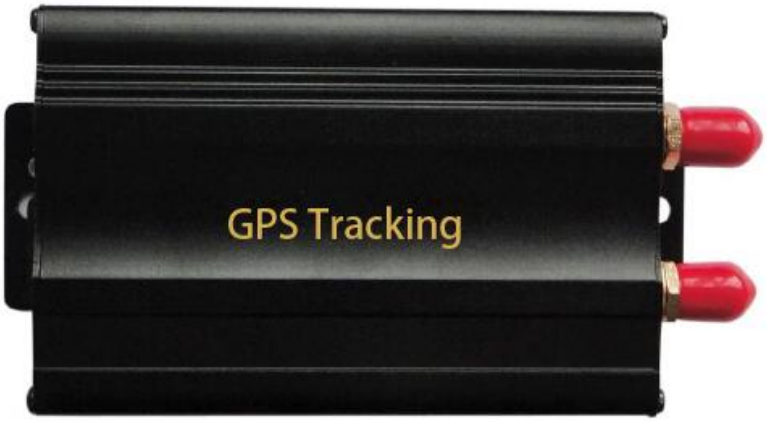
.GSM/GPRS/GPS Vehicle Tracker
GPS103-A/GPS103-B User Manual



Preface

Thank you for purchasing the tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual.

Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

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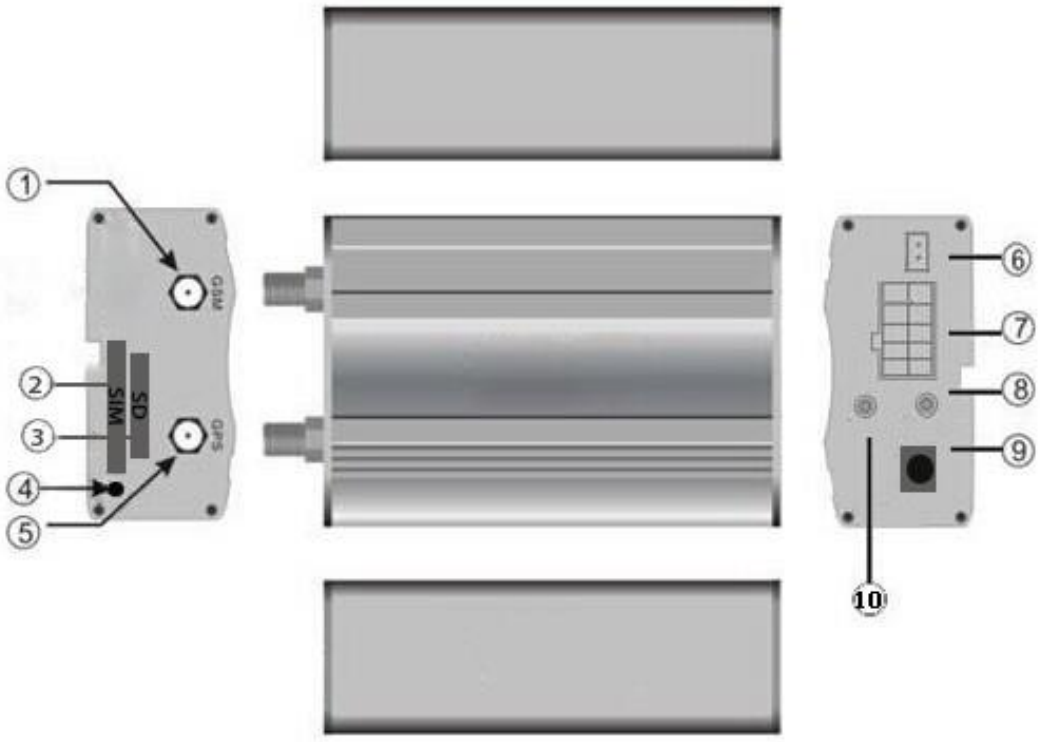
1. Introduction

This tracker is a new product based on the GSM / GPRS network and GPS satellite positioning system, which set multiple functions of security, positioning, monitoring surveillance, emergency alarms and tracking in its entirety. It can track and monitor remote target by SMS or internet.

2. Hardware Description



①.GSM Antenna jack

②.SIM card slot

③.SD card slot

④.SIM card slot Pop-up switch

⑤.GPS Antenna jack

⑥.USB jack

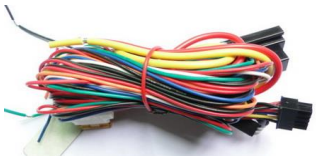
⑦.External Connection jack

⑧.Power/GSM/GPS LED indicator

⑨.Monitor jack

⑩. Remote control receiver antenna （Option, For model B only）

3. Accessories Name

NO.	PHOTOES	NAME	NOTE
1		GPS Antenna	3 meters
2		GSM Antenna	3 meters
3		Microphone	1.5 meters
4		Power wire	10PIN
5		Relay	12V/40A
8		Remote control	Option for model B ONLY

4. Specifications

Content	specifications
DIM.	65*50*26mm
Weight	60g
Network	GSM/GPRS
Band	850/900/1800/1900Mhz
GSM/GPRS Module	MT6260A
GPS Module	Ublox7020
GPS Sensitivity	-159dBm
GPS Accuracy	5m
GPS Start time	Cold status 45s Warm status 35s Hot status 1s

Voltage of car power system	12 V-24V
Backup battery	Chargeable changeable 3.7V 500mAh Li-ion battery
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +65°C
Humidity	5%--95% non-condensing

5. Operating Instructions

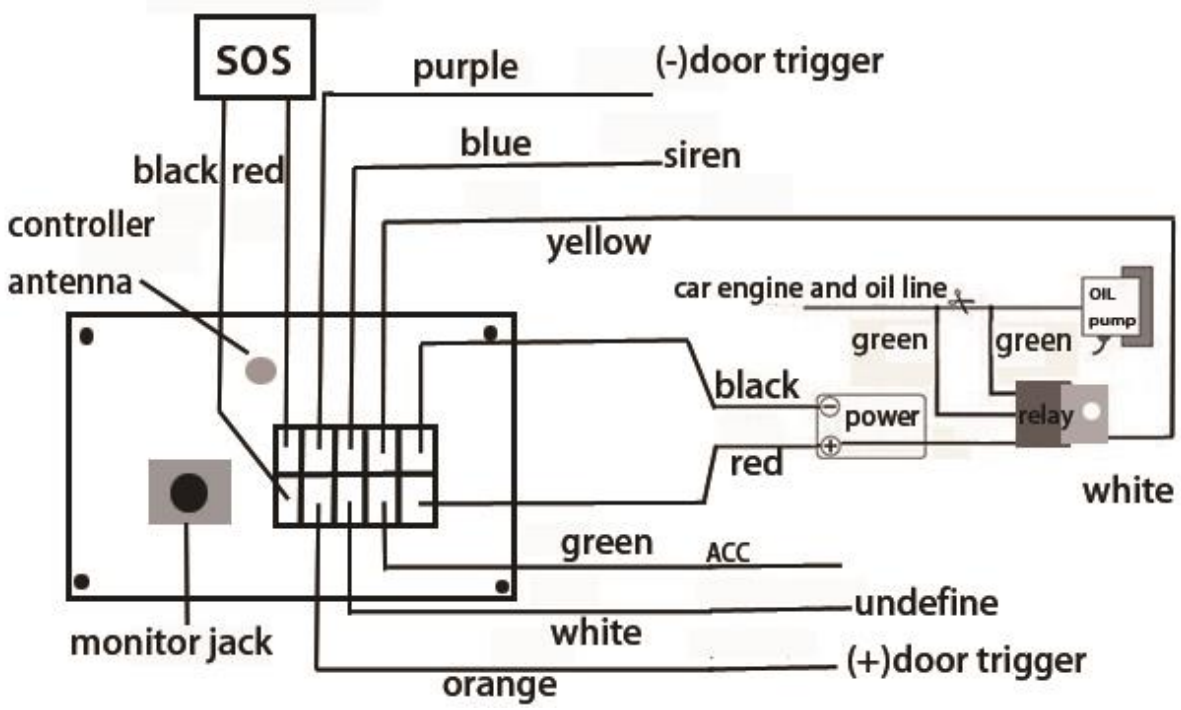
5.1 Terminal Installation

5.1.1 Please ask the qualified engineers to install it.

5.1.2 Do not install it in a environment which is more than GSM performance, And please pay attention to fix the antennas in a exactly position with good signals.

5.1.3 Pay attention to make installation location preventing water and dust.

5.1.4 Find the 10 PIN harness and insert it into the corresponding holes of the products, and connect the wires with the original car circuit showing below:



Wiring diagram

5.1.5 Note: The orange wire can be connected to the original car alarm horn;

5.1.6 Knowing about the type of the door trigger is positive or negative trigger. Please connect the green wire to the door control circuit if it is positive, and connect blue wire if it is negative.

5.1.7 Please install the SOS button on the place driver can touch.

5.1.8 Insert the external monitor Microphone into the monitor jack.

5.1.9 Connected the GPS and GSM antenna to the right jack, and find a appropriate place and fix the antennas to make sure it receive signals very well.

5.2 SIM CARD Installations

5.2.1 Use a tweezers or a sharp thing to touch the SIM CARD popup switch, the SIM CARD slot will pop up, take out the SIM card slot and put SIM card in it. And then put the SIM card slot back to its original position after confirm the SIM card in the right place.

5.2.2 Please make sure that the SIM card is able to execute the function of incoming calls display, no calls can be diverted and the PIN code is locked. The SMS format must be TXT format, and can’t recognize the PDU format.

5.3 Turn on the Tracker Device.

5.3.1 Connect the positive and negative wire, red and black ones, with 12V or 24V car power system, wait for 1 minute after connecting power to wait

tracker works normal.

5.4 GSM/GPS LED Indicator

5.4.1 Red LED indicator on: No GSM network signals.

5.4.2 Red LED indicator flash fast (one time each second): GSM Network signal is normally, and tracker works under GSM mode.

5.4.3 Red LED indicator flashes slowly (one time each three second): Tracker works under GPRS mode.

5.4.4 Blue LED indicator on: GPS signal is normal.

5.4.5 Blue LED indicator off: No GPS signal.

6. Function setting

6.1 Initialization

Send SMS "**begin+password**" to the unit, it will reply "BEGIN,CONFIG OK " and initialize all the settings to default factory settings.（default password: 123456）

For example: send SMS "begin123456", it will reply "BEGIN,CONFIG OK ".

The "+" in the command, please don't type "+", space means press the space keyboard on your cell phone.

6.2 Change Password

6.2.1 Send SMS "**password+old password+space+new password**" to the unit to change the password.

For example: send SMS “password123456 888888” to the unit. If succeeded, “PASSWORD,CONFIG OK” will reply to your cell phone from the device tracker.

6.2.2 Make sure the new password is in 6 digits, or else the tracker cannot recognize the password.

6.3 Authorization

There are 5 numbers to be allowed to authorize in the tracker at most.

6.3.1 Authorization: Send SMS“**admin+password+space+cell phone number**” to set up an authorized number, the other authorized numbers should be set by the first authorized number, if the number is successfully authorized, the unit will reply” ADMIN,CONFIG OK” by SMS.

6.3.2 Delete authorization: Send SMS“**noadmin+password+space+authorized number**” to delete the authorized number.

6.3.3 If you want to track the target tracker device when it enters into another country, you must add the country code before the cell phone number, for example, send SMS” admin123456 008613322221111” to the device. Note: 13322221111 will be set up as the authorized number.

6.4 LBS Tracking:

Send SMS “**smslink123456**” to device number, it will reply a real time tracking message include Long & Lat info.

6.5 LBS Tracking:

6.5.1 You must set up the APN of your local GSM network for the SIM card in tracker first before using this function, if there is user name and password for GPRS login, Please refer to following to configure the APN, user name and password for GPRS login.

6.5.2 After configure the APN, send SMS "**address+password**" to device, it will reply SMS including LBS link as below:

http://220.231.161.156/lbs/?mcc=460&mnc=000&lac=9352&cellid=4763

6.6 Modes switch between "track" & "monitor"

6.6.1 The default mode is "track" (track mode).

6.6.2 Send SMS command "**monitor+password**" to tracker device of vehicle terminal, it will reply "MONITOR,CONFIG OK" and switch to "monitor" mode. In this mode, the user can dial up the tracker device to monitor the voice.

6.6.3 Send SMS command "**tracker+password**" to tracker device of vehicle terminal, It will return "TRACKER,CONFIG OK" and restore to "track" mode.

6.7 Alarms

6.7.1 Low battery alarm

6.7.1.1 Send SMS "**lowbattery+password+space+1**" to activate the function, it will send SMS"low battery+latitude/longitude" to authorized numbers when voltage of battery is below about 3.6V.

6.7.1.2 This function disactivates as default, send SMS "**lowbattery+ password+space+0**" to deactivate.

6.7.2 Power off alarm

6.7.2.1 Send "**extpower+password+space+1**" to activate, it will send SMS "power alarm+latitude/longtitude" to authorized numbers when external power is cut off.

6.7.2.2 This function disactivates as default. Cancel: Send SMS "**extpower+ password+space+0**" to deactivate it.

6.7.3 GPS blind Spot alarm

6.6.3.1 This function disactivates as default, send SMS "**gpssignal+ password+space+1**" to activate the function, it will send alert SMS "no gps+last valid latitude/longitude before lost signal"

6.6.3.2 Send SMS "**gpssignal+password+space+0**" to deactivate.

6.7.4 SOS alarm

Long Press the SOS button for 3 seconds,（For model B, press button on remote controller for 3 seconds）, the tracker device will send SMS "help me!+lat./long." to all the authorized numbers.

6.7.5 Geo-fence alarm

Set up a geo-fence for the tracker device to restrict its movements within a district. The unit will send SMS to the authorized numbers when it detects alarm.

Remark: 0 represents close alarm; 1 represents out fence alarm; 2

represents enter fence alarm; 3 represents out and enter fence alarm.

6.7.5.1 Set up:

the user can send SMS "**stockade+password+space++semi-diameter+alarm type**" to unit to set the restricted district. In case of breach, it will send SMS "stockade!+geo-info" to the authorized numbers.

For example: send SMS "stockade000000 500 1" stands for based on device current coordinates as center, 500 is semi-diameter, set 1 as out fence alarm type.

6.7.5.2 Cancel: Send SMS "**nostockade+password**" to deactivate this function.

6.7.6 Movement alarm

Device will send movement alarm once vehicle moved 100 meters. The function is default activate if detected vehicle ACC ON. When vehicle ACC OFF stands for close movement alarm.

(Note: this function must connect ACC wire).

6.7.7 Overspeed alarm

6.7.7.1 Set up: Send SMS "**speed+password+space+80**" to the unit(suppose the speed is 80km/h),and it will reply "speed OK!". When the target moves exceeding 80km/h.the unit will send SMS "speed+Geo-info" to the authorized numbers.

6.7.7.2 Cancel: Send SMS "**speed+password+space+0**" to deactivate the overspeed alarm.

Remark: It is recommended that the speed alarm is set at not less than

30km/h.For below that rate; it may cause the excursion of the GPS signal influenced by clouds etc.

6.7.8 ACC working alarm

6.7.8.1 This function is disabled as default. To active this functions, send "**ACC+password+1**" to tracker, it will reply "ACC,CONFIG OK". And tracker will send "ACC on+latitude & longitude" to authorized numbers when detect ignition action, that means the vehicle has been started.

6.7.8.2 Send "**ACC+password+0**" to disabled this function, tracker will reply "ACC,CONFIG OK".

6.8 Cut off the Oil and Power System

Send SMS command "**DY+password**" to the tracker device, it will reply "DY CONFIG OK" to your cell phone from the tracker device, and stop your car oil pump or elec as well.

6.9 Resume the Oil and Power System

Send SMS command "**TY+password**" to the unit, It will reply "TY,CONFIG OK" and resume your car oil pump or elec as well.

6.10 Arm

6.10.1 Set up arm by SMS

6.10.1.1 Send SMS command "**DOOR+password+1**" to the tracker device in

the vehicle. It will reply “DOOR,CONFIG OK” in both armed and disarmed state, and the SMS command will make the tracker device enter into armed state if the unit currently disarmed.

6.10.1.2 User must stop the engine, (that is ACC is lower voltage).Sending SMS “DOOR+password+1” when close the door and left. You will set up arm status fail if the engine is turned on (the ACC is high voltage).

6.10.2 Set up arm by remote controller (Option, for model B ONLY)

Press button on the remote controller for 0.5 seconds, the car enters into armed state and the siren will beep one time, no SMS reply.

6.11 Function of Remote Controller (Option, for model B ONLY)

Button	Function	Description
	ARM	Press for one time
	DISARM	Press for one time
	ARM & Silent mode	Press for one time when it is in disarm state, the siren will beep three times. No voice from siren when alarm triggered and quit from siren mode automatically when disarm.
	SOS	Press for one time, tracker will send SOS alert to authorized phone numbers.
	Deterrence/car search	Press for one time when it is in arm state, siren will beep 10 seconds, press disarm button

		to quit.

6.12 Disarm

6.12.1 Disarm by SMS

Send SMS command "**DOOR+password+0**" to the tracker device in the vehicle, It will reply “DOOR,CONFIG OK” in both armed and disarmed state, and the SMS command will make the tracker device enter into disarmed state if the unit currently armed.

6.12.2 Disarm by remote control (Option, for model B ONLY)

Press button on the remote control, the car enters into disarm state, and the siren will alarm two times, no SMS reply.

6.13 Silent Mode

6.13.1 Set up silent mode by SMS

1) Send SMS “**silent+password+1**” to tracker device, it will reply “silent ok!”. It means tracker device enters into silent mode, siren won’t be sound after alarm is triggered, but tracker will send alarm SMS to authorized number.
2) Quit silent mode send disarm command “**silent+password+0**” to disable the function.

6.13.2 Set up silent mode by remote controller (Option, for model B ONLY)

1) **Silent mode：** Press in disarm state for 0.5 second, the siren will beep one time, It means tracker device enters into silent mode, siren won’t be

sound after alarm is triggered, but tracker will send alarm SMS to authorized numbers.

2) **Quit silent mode：** Press to quit

6.14 Switch between GPRS and SMS Mode

Send SMS "**GPRS+password+1**" to tracker device to switch to GPRS mode; Send SMS "**GPRS+password+0**" to tracker device disable GPRS mode. Both will reply "GPRS,CONFIG OK".

6.15 Check the Vehicle State

Send SMS command "**check+password**" to the tracker device in the vehicle, it will reply following SMS:

Cnum: center number;

GPS:1 : 1 means GPS located, 0 means not located;

itv:30: time interval is 30 seconds;

TZ:8: time zone is GMT 0;

GF:500,1,1: Geo-fence function, 500meters, 1 stands for open.

OS:80: 80 stands for speed value.

door:1: stands for door alarm function open.

6.16 Device Resetting

6.16.1 SMS Reset

Send SMS “**reset+password**” to tracker device to reset the GSM module and GPS module of the tracker device, it will reply “reset ok”.

6.17 IMEI Checking

6.17.1 Send SMS command "**getimei+password**" to the unit. E.g. Send SMS command "getimei123456" to the tracker device, an IMEI number in 15 digits will reply to your cell phone.

6.17.2 Send SMS command "**setimei+password+space+15 digits IMEI number**" to the unit.

E.g. Send SMS command "setimei123456 123456789012345" to the tracker device, it will reply SMS “SETIMEI,CONFIG OK”.

6.18 Time Setting

6.18.1 Send SMS command “**timezone123456+space+time**” to the tracker unit, If succeed, It will reply “time OK”

6.18.2 For example: Send SMS “timezone123456 8”, 8 is Chinese time zone, If your country time zone is minus, send SMS “time zone123456 -8”.

6.19 TCP/UDP switch

Send SMS to switch TCP to UDP, SMS Command:"**UDP+password+1**" switch

to UDP mode.

Send SMS Command:"**UDP+password+0**" switch off UDP mode.

6.20 GPRS Setting

User must send SMS via cell phone to set up APN, IP and port before starting tracking by GPRS on tracking system.

6.20.1 Setting up APN

6.20.1.1APN standards for Access Point Name and differs from country to country. For more information about your local APN, please inquire with your local GPRS network operator.

6.20.1.2 Send SMS "**APN+Space+your local APN+APN name+APN password**" via a cell phone and if succeeded, the tracker will return the message "APN OK".

6.20.1.3 E.g. Send SMS command "APN123456 CMNET". If succeeded, it will reply SMS "APN OK"

Notes: CMNET is the APN of one of china GPRS Network Operator (China mobile), it has no APN name and Password.

6.20.2 IP and Port Setup

Send SMS: "**adminip+password+space+IP Address+space+port number**", If succeeded, it will reply "ADMINIP,CONFIG OK". E.g. Send SMS: "adminip123456 58.64.200.27 8169" to the tracker device, (58.64.200.27 is IP, 8169 is port).

6.21 Set up monitor center number

6.21.1 Setup: send command "**centernum+password+space+number**" to tracker, it will reply"centernum ok". After setup monitor center number, the messages of auto track by sms will be set to this center number, if all alarms need to be sent to this number too, then this center number must be setup as authorized number.

6.21.2 Cancel: Send "**centernum+password**" to tracker, it will reply "CENTERNUM,CONFIG OK".

7. Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.

2. Don't use & store the unit in dusty places.

3. Don't put the unit in overheated or overcooled places.

4. Handle carefully. Don't vibrate or shake it violently.

5. Clear the unit with a piece of dry cloth. Don't clean in chemicals, detergent.

6. Don't paint the unit, this may cause some foreign materials left in between the parts.

7. Don't disassemble or refit the unit.

8. Please read the user manual carefully before installation and operation, learn

something more about the voltage range. Otherwise, it won't work properly or destroy the product.

8. Faults & the Solutions

Faults	Solution
Startup Fail	Please check out the power wiring in correct place.
Call Fail	Check the GSM antenna connected. Check whether the
Hang up Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and
Monitor Fail	Check if the authorized number is setup
Location report in digits of zeros.	Check out if the GPS external antenna well.